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PATENTREMARKS

This Amendment and Response is submitted in response to the Final Office Action mailed January 21, 2004. Applicants petition under 37 C.F.R. §1.136(a) for a two month extension of time and hereby authorize the Commissioner to charge the fee required under 37 C.F.R. §1.17(a) to our Deposit Account No. 50-2613. With the granting of the foregoing Petition, the time for responding to this Office Action is extended to include June 21, 2004. The Commissioner also is authorized to charge any additional fee required by this submission or to credit any overpayment to our Deposit Account No. 50-2613. Applicants respectfully request reconsideration and withdrawal of all outstanding rejections.

Claims 1-17; 23-26; 30-52; and 57-97 are pending. Claims 18-22, 27-29, 53-54 and 56 have been cancelled. Claims 12, 13, 52, and 64-97 have been deemed withdrawn. Claims 1-11, 14-17; 23-26; 30-51; and 57-63 are under consideration. Claims 6, 7, 9, 10, 23-26, 30-35, 37, 38, 44-46, 48, 50, 55, and 57-63 have been amended for consistency in language and to conform with preferred Patent Office practice. Claims 1, 2, 4, 5, 12, 14, 36, 40, 42, 47, and 52 have also been amended; support for which may be found throughout the specification and, in particular, in those claims as originally filed. Therefore, no new matter has been added by reason of these amendments.

Applicants acknowledge withdrawal of rejections under 35 U.S.C. § 102 based on references by Kost, by Grandberg, by Gryaznov, by Yudin, by Chapman, by Yoshikawa, by Kyotani, and by Ferlin. January 21, 2004 Office Action at pages 2-3.

In the Office Action mailed January 21, 2004, the Examiner remarked that claims "Claims directed to compounds outside of the species formula (I)-(IV) are claims 12, 13, and 52." See January 21, 2004 Office Action at page 2. The Examiner notes that

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"Applicant . . . maintains the examiner is required to search a reasonable number of species, if a generic or linking claim is found allowable. In the instant case, however, no generic claims are found allowable at the present time." *Id.* The Examiner indicated on the Office Action Summary that claims 12, 13, and 52, among others, were withdrawn from consideration. Applicants respectfully submit that generic claims are allowable and respectfully request that claims 12, 13, and 52 be rejoined. MPEP § 806.04.

The Rejection of Claims 18-22, 27, 28, 53, and 56 Under 35 U.S.C. § 112

The Examiner rejected claims 18-22, 27, 28, 53, and 56 under 35 U.S.C. § 112 second paragraph as allegedly being "indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention." January 21, 2004 Office Action at page 4. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have cancelled claims 18-22, 27, 28, 53, and 56, without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter of claims 18-22, 27, 28, 53, and 56 in a related application.

The Rejection of Claims 1, 2, 4-11, 14-19, and 21-39 Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 2, 4-11, 14-19, and 21-39 under 35 U.S.C. § 102 as allegedly "being anticipated by Yamashkin *et al.*" January 21, 2004 Office Action at page 4. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 2, 4, 5 and 36. Those amended claims are not anticipated by Yamashkin. Claims 6-11, 15-17, 23-26, 30-35 and 37-39 ultimately depend from claim 1 and thus, are not anticipated by Yamashkin. Claims 18, 19, 21, 22, 27-29 have been cancelled without prejudice or disclaimer. Thus, the rejection of those claims is moot. Accordingly, Applicants respectfully request that the rejection be withdrawn.

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The Examiner rejected claims 1, 2, 4-11, 14-19, and 21-39 under 35 U.S.C. § 102 as allegedly "being anticipated by El-Desoky." January 21, 2004 Office Action at pages 4-5. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 2, 4, 5 and 36. Those amended claims are not anticipated by El-Desoky. Claims 6-11, 15-17, and 23-26, 30-35 and 37-39 ultimately depend from claim 1 and thus, are not anticipated by El-Desoky. Claims 18, 19, 21, 22, 27-29 have been cancelled without prejudice or disclaimer. Thus, the rejection of those claims is moot. Accordingly, Applicants respectfully request that the rejection be withdrawn.

The Examiner rejected claims 1, 2, 4-11, 14-19, and 21-39 under 35 U.S.C. § 102 as allegedly "being anticipated by Majmudar et al." January 21, 2004 Office Action at page 5. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 2, 4, 5 and 36. Those amended claims are not anticipated by Majmudar. Claims 6-11, 15-17, and 23-26, 30-35 and 37-39 ultimately depend from claim 1 and thus, are not anticipated by Majmudar. Claims 18, 19, 21, 22, 27-29 have been cancelled without prejudice or disclaimer. Thus, the rejection of those claims is moot. Accordingly, Applicants respectfully request that the rejection be withdrawn.

The Examiner rejected claims 1, 2, 4-11, 14-19, and 21-39 under 35 U.S.C. § 102 as allegedly "being anticipated by Yamashkin et al." January 21, 2004 Office Action at page 4. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 2, 4, 5 and 36. Those amended claims are not anticipated by Yamashkin. Claims 6-11, 15-17, and 23-26, 30-35 and 37-39 ultimately depend from claim 1 and thus, are not anticipated by Yamashkin. Claims 18, 19, 21, 22, 27-29 have been cancelled without prejudice or disclaimer. Thus, the rejection of those

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claims is moot. Accordingly, Applicants respectfully request that the rejection be withdrawn.

The Examiner rejected claims 1, 2, 4-11, 14-19, and 21-39 under 35 U.S.C. § 102 as allegedly "being anticipated by Akhvlediani et al." January 21, 2004 Office Action at page 4. Without acquiescing to the rejection and solely to expedite prosecution, Applicants have amended claims 1, 2, 4, 5 and 36. Those amended claims are not anticipated by Akhvlediani. Claims 6-11, 15-17, and 23-26, 30-35 and 37-39 ultimately depend from claim 1 and thus, are not anticipated by Akhvlediani. Claims 18, 19, 21, 22, 27-29 have been cancelled without prejudice or disclaimer. Thus, the rejection of those claims is moot. Accordingly, Applicants respectfully request that the rejection be withdrawn.

The Rejection of Claims 1-11, 14-19, 21-38, 42-51, and 53-62 Under 35 U.S.C. § 103

The Examiner rejected claims 1-11, 14-19, 21-38, 42-51, and 53-62 under 35 U.S.C. 103(a) as allegedly being "unpatentable over Adams (WO 00/12502)." January 21, 2004 Office Action at page 5. According to the Examiner, "one of ordinary skill in the art would be motivated to replace the hydrogen with the alternative halogen, alkoxy, aryloxy, and alkylthio to arrive at the instant invention with the reasonable expectation of obtaining an additional compound useful for treating obesity." January 21, 2004 Office Action at page 6. The Examiner further characterized Adams as teaching that "any species within the genus . . . would be effective in the treatment of obesity." *Id.* However, none of the rejected claims recites a compound useful for treating obesity. Thus, the Examiner has failed to explain how Adams renders obvious any of the rejected claims.

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For a reference to form the basis for an obviousness rejection under 35 U.S.C. § 103, it "must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *In re Deminski*, 796 F.2d 436, 230 USPQ 313 (Fed. Cir. 1986); *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992) ("A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem."); and *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993). If a cited reference is not analogous art, it has no bearing on the obviousness of the patent claim. *Jurgens v. McKasy*, 927 F.2d 1552, 18 U.S.P.Q.2d 1031 (Fed. Cir. 1991), *cert. denied*, 502 U.S. 902 (1991).

The Examiner has not explained how Adams, which describes "selective, directly acting 5HT₂ receptor ligands," (Adams at page 3, lines 1-2) is reasonably pertinent to the present invention, which "relates to non-steroidal compounds that are modulators . . . of androgen receptors and to methods for making and using such compounds." (Specification at page 1). Transmembrane G-protein-coupled 5-HT (serotonin) neurotransmitter receptors are structurally and functionally different from androgen receptors, which are intracellular steroid hormone receptors. One of ordinary skill in the art would not have considered compounds that interact with 5-HT receptors as likely candidates for androgen receptor activity. Accordingly, Adams is not analogous art and cannot be used to support an obviousness rejection. Applicants respectfully request withdrawal of this rejection.

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Notwithstanding the improper use of Adams as a reference under 35 U.S.C. § 103, Applicants respectfully submit that the Examiner has not presented a *prima facie* case of obviousness based on this reference. The Examiner bears the initial burden of establishing a *prima facie* case of obviousness, and until such a showing is made, Applicants are under no obligation to present evidence of non-obviousness. *See In re Piasecki*, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984) (acknowledging that the PTO bears the initial burden of establishing a *prima facie* case of obviousness.). To establish a *prima facie* case, the PTO must satisfy three requirements. First, the prior art relied upon, coupled with the knowledge generally available at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification of the prior art must have had a reasonable likelihood of success, determined from the vantage point of a skilled artisan at the time the invention was made. *See Amgen, Inc. v. Chugai Pharm. Co.*, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. *See In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). It is well established that the teachings or suggestions, as well as the reasonable expectation of success, must come from the prior art, not from the applicant's disclosure. *See In re Vaeck*, 20 U.S.P.Q. 1438, 1442 (Fed. Cir. 1991).

As noted above, Adams describes compounds that act as 5-HT ligands. *See Adams* at 1:5-6; 3:3-6; 17-18, Examples 3 & 4. There is no suggestion in Adams that such compounds could act as androgen receptor modulators or would be useful for treating male sex steroid-dependent diseases and conditions. Moreover, Adams does not suggest that modification of the disclosed species by substitution of the R₃ hydrogen (corresponding to position R¹¹ in the claimed compounds) with halogen, alkoxy, aryloxy or

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alkythio would result in compounds with androgen modulator activity. Thus, there is no suggestion or motivation in Adams to replace R₉ hydrogen with the alternatives selected from the embodiment on page 7 (lines 26-30), as suggested by the Examiner, to arrive at the compounds of the present invention.

Furthermore, Adams does not provide a reasonable expectation of success. Adams does not suggest that modifying the disclosed 5-HT ligand species (e.g., compounds of Examples 1-3) by replacing the R₉ hydrogen with halogen, alkoxy, aryloxy or alkythio would result in an androgen receptor modulator compound. Notwithstanding the Examiner's statement that "Adams . . . clearly taught that any species within the genus, especially the preferred genus, would be effective in the treatment of obesity," (January 21, 2004 Office Action at page 6), it is not at all clear that such a compound would even be obvious as a 5-HT ligand. Adams' suggestion that halogen, alkoxy, aryloxy and alkylthio are optional choices for the R₉ hydrogen on the pyrrolo nitrogen is merely conjecture without evidence of functional interchangeability. And nothing in Adams provides a reasonable expectation of success for compounds that are androgenic receptor modulators, even if such modulators also act as 5-HT-ligands and/or are useful for treating obesity. Without a reasonable expectation of success, the Examiner has not provided a *prima facie* case for obviousness of the present invention in view of Adams. Accordingly, for at least these reasons, Applicants respectfully request withdrawal of this rejection.

Allowable Subject Matter

Finally, the Examiner objected to claims 40-41 as depending from rejected claims. January 21, 2004 Office Action at page 6. Applicants respectfully submit that the base claim (claim 1) is in condition for allowance. Thus, Applicants respectfully request that the objection of claims 40-41 be withdrawn.

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Applicants respectfully submit that all of the pending claims are in condition for allowance and such is respectfully requested. The Commissioner is hereby authorized to charge \$420.00 to our Deposit Account No. 50-2613 for the fee required under 37 C.F.R. §1.17(a)(3) for the two month extension of time. The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment, to Deposit Account No. 50-2613.

In view of the foregoing remarks, Applicants believe that the entire application is in condition for allowance and such action is respectfully requested. If it is believed that prosecution can be assisted thereby, the Examiner is invited to contact Applicants' undersigned Representative at the below-listed telephone number.

Respectfully submitted,

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